

lands. Jackson, 7th, entire portion of state between this point and Covington submerged, all communication cut off, loss of property without precedent; no such flood since the settlement of the country. Plattsburgh, 23rd, all bottom lands under water to a depth of six to eight feet, farmers on Iowa side have abandoned their houses and report heavy losses of cattle. Pacific Junction, 23rd, town submerged to a depth of four to eight feet; great suffering and much loss of property. Omaha, 8th, river 21 feet above low-water mark, highest ever known here and $2\frac{1}{2}$ feet higher than the April flood of 1875 or the June flood of 1867; everything on the levee submerged and the low lands on the east side of the river flooded for miles; river three miles wide opposite the city and filled to a considerable extent with floating ice; twelve of the largest buildings of the U. P. R. R. Co.'s shops were flooded to a depth of six to twelve inches and 1,300 men temporarily thrown out of employment. 9th, river opposite city increased to a width of six miles; damage to property immense. 20th, water 20 feet above low-water mark; all the bottoms again submerged; railroad business entirely suspended, shops and depots flooded. 22nd, water 22 feet 10 inches above low water mark and rising at the rate of one inch per hour; all railroad connections severed; Union stock yards flooded; 300,000 feet of lumber carried away; Elkhorn river overflowed, railroad partially carried away. 23rd, 2 p. m., river 23 feet and 4 inches above low-water mark, or 16 inches higher than ever before recorded; all passengers going east compelled to pass to the local depots in boats; \$30,000 worth of lumber carried away. 24th, water 4 feet higher than the flood of 1867; current very rapid; all railroad tracks washed away. 29th, water still rising; 50,000 feet of lumber carried away; the Union Pacific R. R. shops, smelting works, Willow Springs distillery and several large warehouses flooded. *Texas*.—Huntsville, 22nd, heaviest storm of rain ever known here; surrounding country flooded; all bridges carried away; crops seriously damaged. *Wisconsin*.—Beloit, 20th, town partially inundated; great loss to mill property. Fort Atkinson, 20th, all the low lands flooded; ice came down in huge masses, crushing bridges, dams and every obstacle in its path; water rose to within a few inches of the top piers of the city bridge; highest ever known. Milwaukee, 21st, flood, highest and most destructive ever known here; basements along the docks and several lumber yards and tanneries submerged. At West Bend, Thevisville, Newburg and other neighboring places all dams and bridges gone.

TEMPERATURE OF WATER.

The temperature of water, as observed in rivers and harbors at Signal Service stations, with the average depth at which observations were taken, is given in the table on the left hand side of chart No. III. Owing to ice, breakage of instruments and opening of new stations, observations are wanting as follows: Atlantic City, 1st to 20th; Alpena, 1st to 17th; Boston, 1st to 21st; Burlington, Vt., 1st to 20th; Cleveland, 1st to 18th; Chicago, 1st to 11th; Detroit, 1st to 5th, 15th and 16th; Duluth, 1st to 26th; Escanaba, 1st to 31st; Grand Haven, 1st to 7th; Marquette, 1st to 31st; Milwaukee, 1st to 25th; Newport, 1st to 24th; New Haven, 1st to 22nd; New Shoreham, 1st to 16th; Port Eads, 1st to 9th; Sandusky, 1st to 10th.

ATMOSPHERIC ELECTRICITY.

Auroras.—There have been an unusual number of displays reported from the Lake region. Most of them occurred on dates coincident with those in other districts to the east and west, thus completing the connection which frequently has been wanting over this region, from one cause or another, generally presumed to be cloudiness and therefore frustrating any attempt to trace a continuous line of observation from east to west, which, from the nature of auroral display is known to be its ordinary disposition. The most important display, where the continuity of observation was unbroken, occurred on the 27th and extended from Mt. Washington to stations in Oregon and Washington Territory and as far south as latitude 38° , seventeen intervening stations reporting. The following were less extended displays but generally visible from New England westward to the Mississippi. 17th, from northern Vermont to northern Indiana and south to latitude 41° , two intervening stations reporting. 18th, from Mt. Washington to Madison, Wis., and south to latitude 43° , seven intervening stations reporting. 19th, from Halifax, N. S., to Escanaba and as far south as latitude 42° , six intervening stations reporting. 20th, from Sydney, Cape Breton Island, to Fort Stevenson, Dak., and southward to latitude 38° , twenty-seven intervening stations reporting. 21st, from Buffalo to Fort Stevenson, Dak., and southward to latitude 43° , two intervening stations reporting. 24th, from Eastport, Me., to Spiritwood, Dak., and southward to latitude 45° , three intervening stations reporting. 28th, from Halifax, N. S., to Spiritwood, Dak., and southward to latitude 40° , fifteen intervening stations reporting. 30th, from Catawissa, Pa., to Vevay, Ind., and southward to latitude 39° , one intervening station reporting. The following were local displays: Williamstown, Mass., 3rd, 8:30 p. m., faint; Burlington, Vt., 4th, 9 to 11 p. m.; Albany, 1st, 11 p. m. to midnight; Duluth, 1st, until 3 a. m.; St. Vincent, Minn., 3rd; Ft. Brady, Mich., 1st, 9 p. m., faint; Eola, Or., 15th, p. m., very faint.

MISCELLANEOUS PHENOMENA.

Sunsets.—The characteristics of the sky at sunset, as indicative of fair or foul weather for the succeeding twenty-four hours, have been observed at all Signal Service stations. Reports from 177 stations